

IN THE CLAIMS

Please cancel claims 2 and 5-10 without prejudice, amend claims 1, 3-4, and add claims 11-28 as follows:

1 1. (Currently amended) A transmitter for use in a communication
2 system, the transmitter comprising a digital input, a coding device
3 for generating data bits for transmission, and means for
4 transmitting the data bits during respective frames of a
5 transmission channel, wherein the coding device comprises a coding
6 circuit for generating a coded output having a greater number of
7 bits than the digital input, an interleaving circuit for operating
8 on the coded output to generate a data block comprising a plurality
9 of interleaved words, a rate matching circuit for adjusting the
10 number of bits in a data block, the data block comprising a
11 plurality of interleaved words generated by the action of an
12 interleaving circuit on a coded output generated by the action of a
13 coding circuit on a digital input, the coded output having a
14 greater number of bits than the digital input, the rate matching
15 circuit having means for adjusting the number of bits in the data
16 block using a rate matching pattern to provide data bits for
17 transmission during respective frames of a transmission channel,
18 characterised in that and means are provided for selecting the rate

19 matching pattern depending on the characteristics of the coding
20 circuit and of the interleaving circuit a bit deletion/repetition
21 rate, wherein a bit deletion/repetition pattern is selected to
22 ensure that the deleted or repeated bits are not required to enable
23 all bits from the digital input to be reconstructed.

2. (Canceled)

1 3. (Currently amended) A ~~rate matching circuit transmitter~~ as
2 claimed in claim 1 or 2, ~~characterised in that,~~ wherein the rate
3 matching pattern for each interleaved word within the data block is
4 offset with respect to the adjacent interleaved word or words
5 within the block.

1 4. (Currently amended) A ~~rate matching circuit transmitter~~ as
2 claimed in ~~any one of claims 1 to 3, characterised in that,~~
3 wherein the rate matching pattern is selected as a function of the
4 interleaving depth of the interleaving circuit.

Claims 5-10. (Canceled)

1 11. (New) A transmitter as claimed in claim 1, wherein the
2 coding circuit applies convolutional coding and said means for
3 selecting is selects said rate matching pattern as a function of the
4 constraint length of the convolutional code.

1 12. (New) A transmitter as claimed in claim 1, further
2 comprising additional coding devices, each for coding a respective
3 digital input, and a multiplexer for combining output data words of
4 said coding device and said additional coding devices for subsequent
5 transmission by the means for transmitting on a single transmission
6 channel.

1 13. (New) A transmitter as claimed in claim 12, wherein outputs
2 of different of said coding device and said additional coding
3 devices are selected to have different data rates, the combined data
4 rate corresponding to the channel capacity of the transmission
5 channel.

1 14. (New) A transmitter as claimed in claim 1, wherein the rate
2 matching pattern forms a matrix including change bits that indicate
3 change of corresponding bits of said interleaved words within said

4 data block, wherein each row of said matrix includes a maximum of
5 one of said change bits.

1 15. (New) A transmitter as claimed in claim 1, wherein said
2 coding circuit has one of a fixed code rate and a predetermined
3 number of rates for a variable data source.

1 16. (New) A transmitter as claimed in claim 1, wherein said
2 interleaving circuit is not adaptive.

1 17. (New) A transmitter as claimed in claim 1, wherein said
2 interleaving circuit has a constant bit rate.

1 18. (New) A transmitter as claimed in claim 1, wherein said
2 coding circuit has one of a fixed code rate and a predetermined
3 number of rates for a variable data source, and wherein said
4 interleaving circuit is not adaptive.

1 19. (New) A transmitter as claimed in claim 1, wherein said
2 rate matching circuit alters a coding rate of said coding circuit.

1 20. (New) A receiver for use in a communication system, the
2 receiver comprising means for receiving a coded digital signal
3 comprising a received data block comprising a plurality of
4 interleaved words, the data block having been processed by a coding
5 device to adjust the number of bits in the data block according to a
6 rate matching pattern, the receiver further comprising a data
7 reconstruction circuit having means for adjusting the number of bits
8 in the data block to reverse the action of the coding device,
9 thereby reconstructing the interleaved words, a de-interleaving
10 circuit having means for generating each of the plurality of
11 interleaved words, a channel decoder, and means for selecting the
12 rate matching pattern as a function of a bit deletion/repetition
13 rate, a bit deletion/repetition pattern having been selected to
14 ensure that the deleted or repeated bits are not required to enable
15 all bits from the digital input to be reconstructed.

1 21. (New) A receiver as claimed in claim 20, wherein the rate
2 matching pattern forms a matrix including change bits that indicate
3 change of corresponding bits of said interleaved words within said
4 received data block, wherein each row of said matrix includes a
5 maximum of one of said change bits.

1 22. (New) A receiver as claimed in claim 20, wherein said
2 coding device has one of a fixed code rate and a predetermined
3 number of rates for a variable data source.

1 23. (New) A receiver as claimed in claim 20, wherein said de-
2 interleaving circuit is not adaptive.

1 24. (New) A receiver as claimed in claim 20, wherein said de-
2 interleaving circuit has a constant bit rate.

1 25. (New) A receiver as claimed in claim 20, wherein said
2 coding device has one of a fixed code rate and a predetermined
3 number of rates for a variable data source, and wherein said de-
4 interleaving circuit is not adaptive. . .

1 26. (New) A receiver as claimed in claim 20, wherein a coding
2 rate of said coding circuit is altered.

1 27. (New) A method of operating a transmitter for use in a
2 communication system, the method comprising operating on a digital
3 input to generate a coded output having a greater number of bits
4 than the digital input, operating on the coded output to generate a

5 data block comprising a plurality of interleaved words and adjusting
6 the number of bits in the data block using a rate matching pattern
7 to provide data bits for transmission during respective frames of a
8 transmission channel, wherein the rate matching pattern is selected
9 as a function of a bit deletion/repetition rate, a bit
10 deletion/repetition pattern is selected to ensure that the deleted
11 or repeated bits are not required to enable all bits from the
12 digital input to be reconstructed.

1 28. (New) A method of operating a receiver for use in a
2 communication system, the method comprising receiving a coded
3 digital signal comprising a received data block comprising a
4 plurality of interleaved words, the data block having been processed
5 to adjust the number of bits in the data block, adjusting the number
6 of bits in the data block according to a rate matching pattern (44),
7 thereby reconstructing the interleaved words, and de-interleaving
8 and decoding the words to generate an output digital signal, wherein
9 the rate matching pattern is selected as a function of a bit
10 deletion/repetition rate, a bit deletion/repetition pattern having
11 been selected to ensure that the deleted or repeated bits are not
12 required to enable all bits from the digital input to be
13 reconstructed. .